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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,270	03/26/2004	George Z. Radominski	200400194-1	8537

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EXAMINER	
FEGGINS, KRISTAL J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/810,270	RADOMINSKI ET AL.	
	Examiner	Art Unit	
	K. Feggins	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-9 and 18-22* is/are allowed.

6)☒ Claim(s) *10-14,23-26, 28-31, 33-37* is/are rejected.

7)☒ Claim(s) *15-17,27 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/19/06 & 8/5/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *IDS dated 3/26/04*.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10-14, 23-26, 28-31,33-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott (US 6,752,488 B2).

Scott et al. disclose the following claimed limitations:

* regarding claim 10, a fluid-ejection device/inkjet printhead/ (Abstract, figs 1-2)

* a plurality of fluid drop generators/chambers, 18/ individual fluid drop generators/chamber/a displaceable assembly/16,18, 20/ for ejecting fluid/22/;

* an electron beam generation/12/ assembly configured to deliver electrical current proximate to individual fluid drop generators/ink chamber,18/ to cause fluid to be ejected therefrom (figs 1-2).

* regarding claim 11, wherein the displaceable assembly is configured to have a non-displaced condition/ejecting of fluid/ and a displaced condition/no ejecting of fluid/ and wherein delivering energy from the electron beam generation/laser,12/ assembly proximate the displaceable assembly/chamber with ink/ causes the displaceable assembly to assume the displaced condition (fig 1).

* regarding claim 12, wherein the displaceable assembly is configured such that ceasing to deliver energy from the electron beam generation assembly proximate the displaceable assembly causes the displaceable assembly to assume the non-displaced condition which imparts mechanical energy upon fluid proximate the displaceable assembly (fig 1).

* regarding claim 13, further comprising a voltage source/poweer supplied/ configured to deliver (col 4, lines 65-67, col 5, lines 11-20);

*electrical energy proximate the displaceable assembly sufficient to cause the displaceable assembly to assume a displaced condition and wherein delivering energy from the electron beam generation assembly proximate the displaceable assembly causes the displaceable assembly to assume the non-displaced condition and thereby exerting mechanical energy on fluid proximate the displaceable assembly sufficient to cause fluid to be ejected from an associated nozzle (col 4, lines 65-67, col 5, lines 11-20, fig 1).

* regarding claim 14, wherein the displaceable assembly/16,18, 20/ comprises a portion of a displacement unit/top of the chamber/ and wherein the electron beam acts directly upon the displacement unit (fig 1).

* regarding claim 23, a fluid-ejection device comprising:

* a fluid assembly comprising at least one displacement unit/ink chamber, 18/ and an associated nozzle/20/ through which fluid can be selectively ejected (fig 1);

* at least one electron beam generation/12, 30/ assembly configured to modulate and steer an electron beam to energize individual displacement units/chambers/ sufficient to cause a fluid drop to be ejected from the associated nozzle (Abstract, col 6, lines 60-65, figs 1 & 6).

* regarding claim 24, wherein the electron beam generation assembly/12 & 14/ comprises deflection plates/14/ configured to steer the electron beam/13/ (figs 1 & 6, Abstract).

* regarding claim 25, wherein the electron beam generation assembly/12 & 14/ comprises a deflection mechanism/14/ configured to steer the electron beam/13/(figs 1 & 6, Abstract).

* regarding claim 26, wherein the electron beam generation assembly is configured to control the current of the electron beam as a means to modulate the electron beam (col 3, 48-60, col 4, lines 65-67, col 5, lines 11-20, fig 1).

* regarding claim 28, wherein the electron beam generation assembly comprises at least one field emitter/laser source/ (col 3, 48-60, col 4, lines 65-67, col 5, lines 11-20, fig 1).

* regarding claim 29, a fluid-ejection device

* a means for imparting mechanical energy on fluid contained in an associated chamber sufficient to cause fluid to be ejected from the chamber;

* a first conductor/14/ configured to deliver a first signal to the means for imparting mechanical energy/ink chamber/;

* an electron beam source /12/configured to deliver energy to the first conductor/14/.

* regarding claim 30, wherein the means for imparting mechanical energy comprises a displaceable assembly/membrane, 16/ and a fixed assembly/ink chamber, 18/.

* regarding claim 31, wherein the electron beam source is configured to deliver the energy independent of any fluid-ejection device integrated control circuitry (col 5, lines 43-58, col 6, lines 1-6).

* regarding claim 33, a fluid-ejection device (Abstract, figs 1 & 6);

* a plurality of chambers (col 6, lines 60-65), individual chambers associated with a nozzle/20/ and a structure/membrane & chamber/ configured to move from a first position to a second position to cause fluid to be ejected from the nozzle;

* a plurality of conductors/14/, individual conductors being electrically coupled to individual structures/membrane & chamber/;

* an electron beam source/laser, 30/ configured to impart energy upon individual conductors/14/ to cause the structure to move from the first position to the second position/thermal expansion of the membrane (figs 1 & 6, col 3, line 66-col 4, line 19).

* regarding claim 34, wherein the electron beam source/laser/ is configured to emit an electron beam/13/ along a first axis and wherein the plurality of conductors/14/ extends along a second axis which is generally orthogonal (generally orthogonal has no specific degree; therefore Exa assume this relationship to be as shown in fig 1) to the first axis (fig 1).

* regarding claim 35, wherein the electron beam source/laser/ is configured to emit an electron beam/13/ along a first axis and wherein the plurality of conductors/14/ extends along a second axis which is generally parallel (generally parallel has no specific degree; therefore Exa assume this relationship to be as shown in fig 1) to the first axis.

* regarding claim 36, wherein the electron beam source/laser/ is configured to emit an electron beam/13/ along a first axis and wherein the plurality of conductors extends along a second axis which is generally obtuse (generally obtuse has no specific degree; therefore Exa assume this relationship to be as shown in fig 1) to the first axis.

* regarding claim 37, wherein the structure comprises a deformable membrane/16/ (figs 1 & 6, col 3, line 66-col 4, line 19).

Allowable Subject Matter

3. Claims 1–9 & 18-22 are allowed.

Claims 15-17, 27 & 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary reason for allowance of claims 1-9 is the inclusion of the limitations of an fluid ejection device that includes a cathode ray tube configured to supply energy to selectively effect the displacement unit to control ejection of the fluid drop. It is this limitation found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 18-22 is the inclusion of the limitations of an fluid ejection device that includes a cathode ray pin tube associated with the fluid assembly and configured to selectively effect ejection of fluid droplets from individual nozzles. It is this limitation found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claims 15-17 is the inclusion of the limitations of an fluid ejection device that includes an electron beam generation assembly having a cathode ray tube having multiple conductors positioned therethrough which are independently addressable by an electron beam generated by the cathode ray tube. It is this limitation found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 27 is the inclusion of the limitations of an fluid ejection device that includes an electron beam generation assembly having a cathode ray pin tube. It is this limitation found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 32 is the inclusion of the limitations of an fluid ejection device that includes an electron beam source having a cathode ray tube. It is this limitation found in the claim, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Communication With The USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patel Vip can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/06

K. FEGGINS
PRIMARY EXAMINER